What is Claimed is:

1. A light intensity distribution measuring method for measuring the light intensity distribution of a laser beam emitted by a semiconductor laser, comprising the steps of:

measuring light intensities at a plurality of locations in a laser beam emitted by a semiconductor laser; and

applying their measurement results to a *t* distribution function to calculate the light intensity distribution.

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- 2. The light intensity distribution measuring method as set forth in Claim 1, including the step of using nonlinear least squares for parameters of the t distribution function when said light intensity distribution is calculated.
- 15 3. A light intensity distribution measuring device for measuring the light intensity distribution of a laser beam emitted by a semiconductor laser, comprising:

a light intensity detecting means that measures light intensities at a plurality of locations in a laser beam emitted by a semiconductor laser; and

data processing means for calculating the light intensity distribution by applying the measurement results obtained by said light intensity detecting means to a *t* distribution function.

4. The light intensity distribution measuring device as set forth in claim 3, wherein said data processing means uses nonlinear least squares for parameters of the *t* distribution function.